

College of Engineering, Computer Science, and Technology

Presentation to Academic Senate
April 23, 2019



COLLEGE OF

**ENGINEERING, COMPUTER
SCIENCE, & TECHNOLOGY**



- 2800 undergrads
- 300 grad students
- 53 T/TT Faculty
- 91 Lecturers
- 6 Administrators/Managers
- 24 Staff

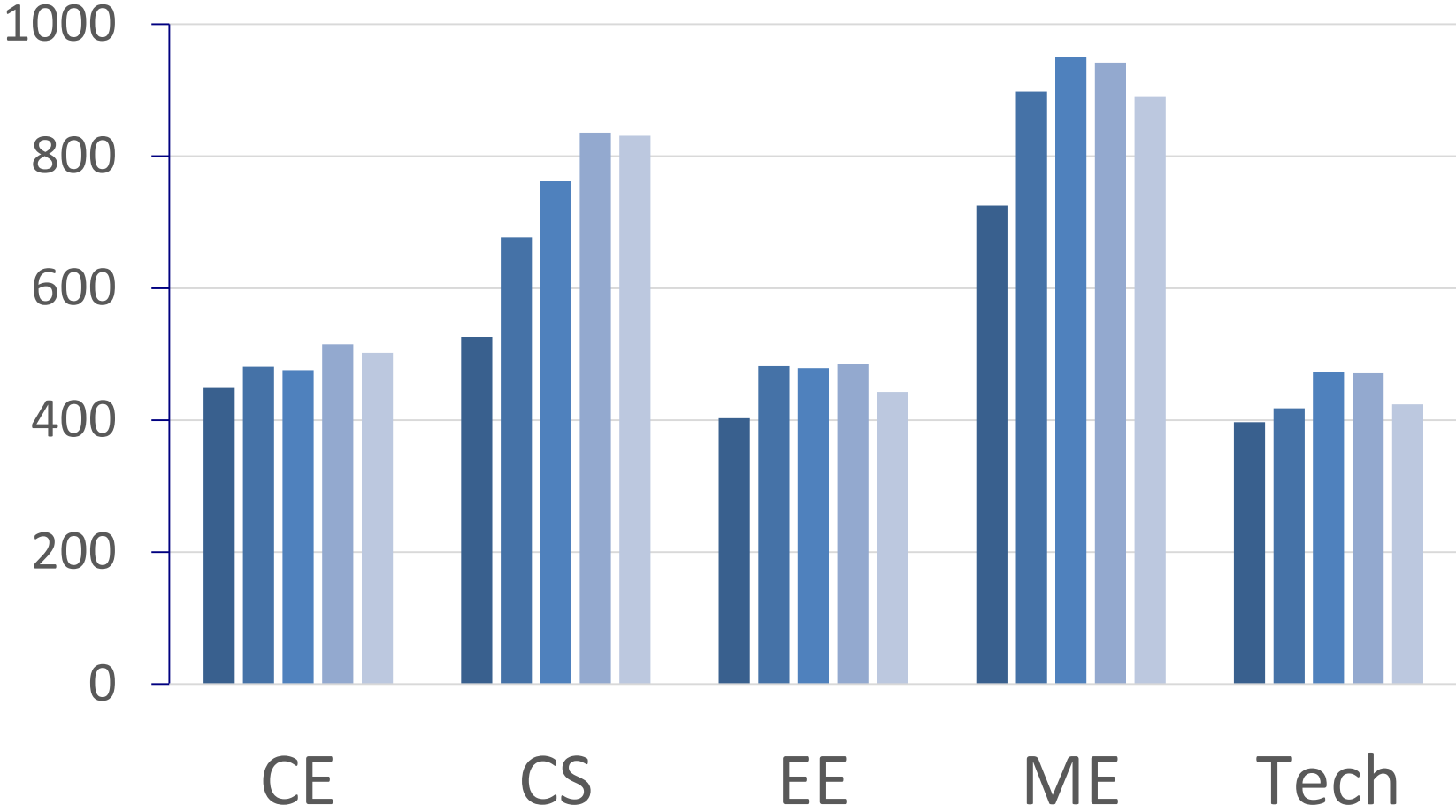


COLLEGE OF

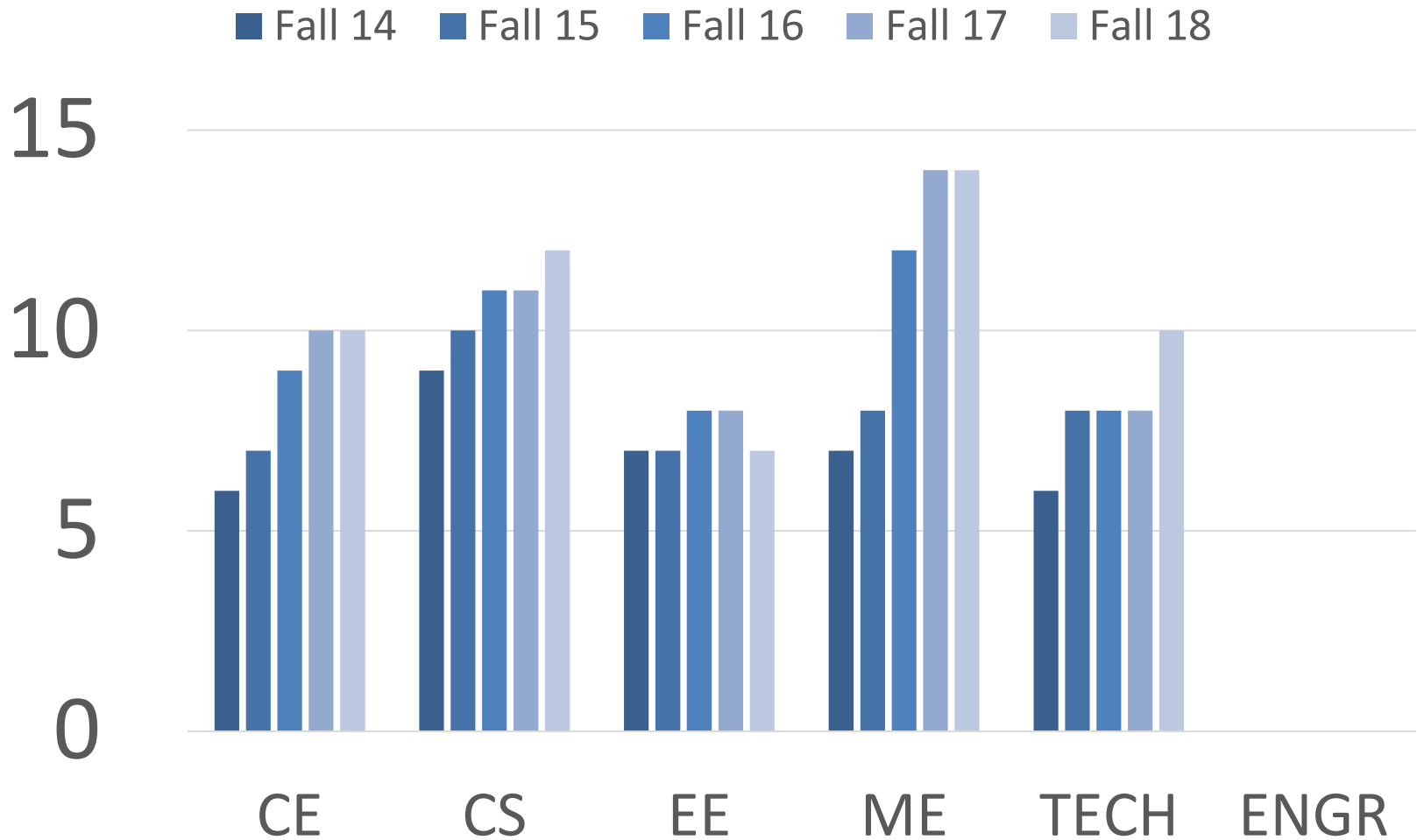
**ENGINEERING, COMPUTER
SCIENCE, & TECHNOLOGY**

Undergrad Enrollment

Fall 14 Fall 15 Fall 16 Fall 17 Fall 18



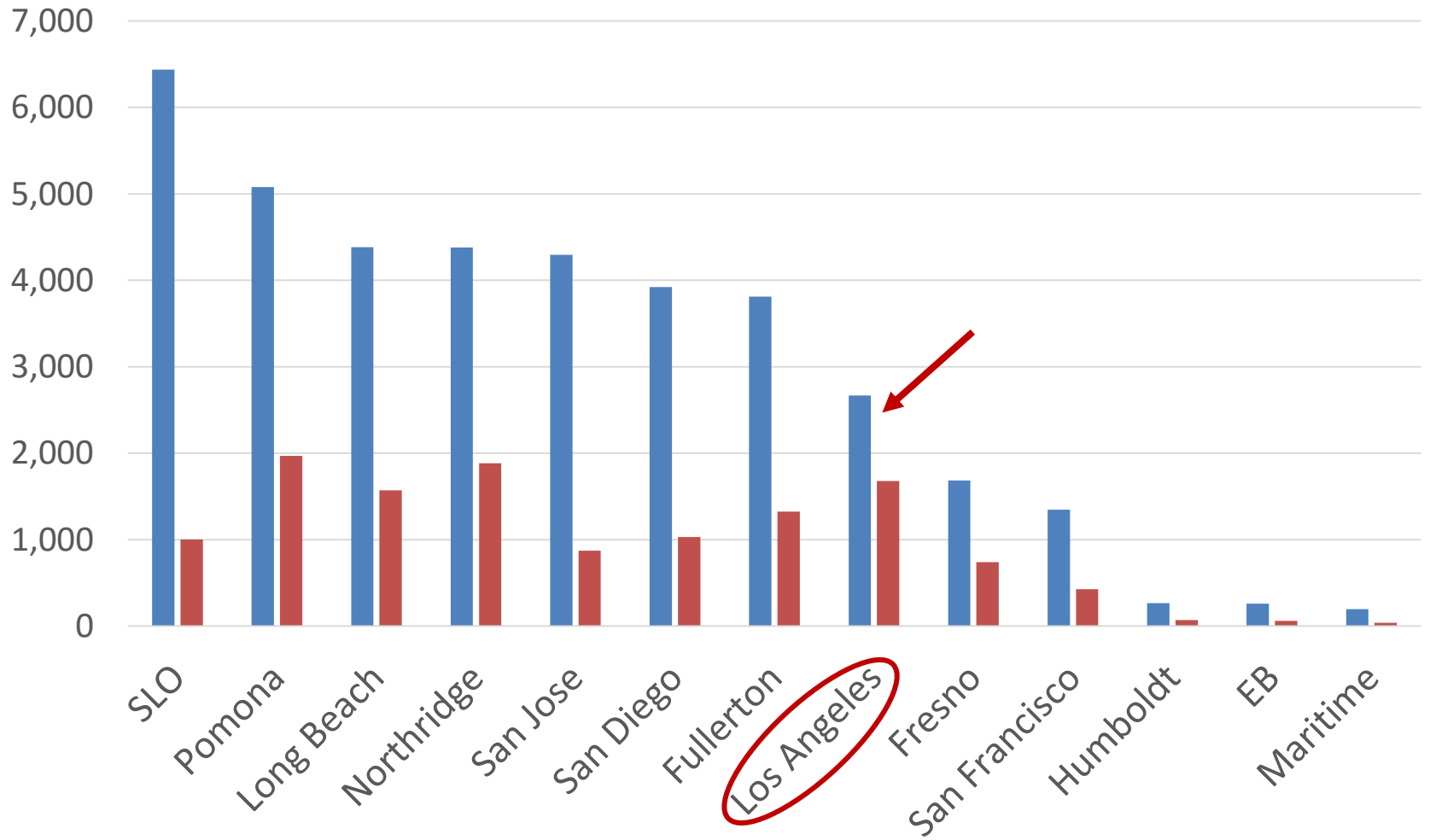
Tenure/Tenure-Track Faculty HC



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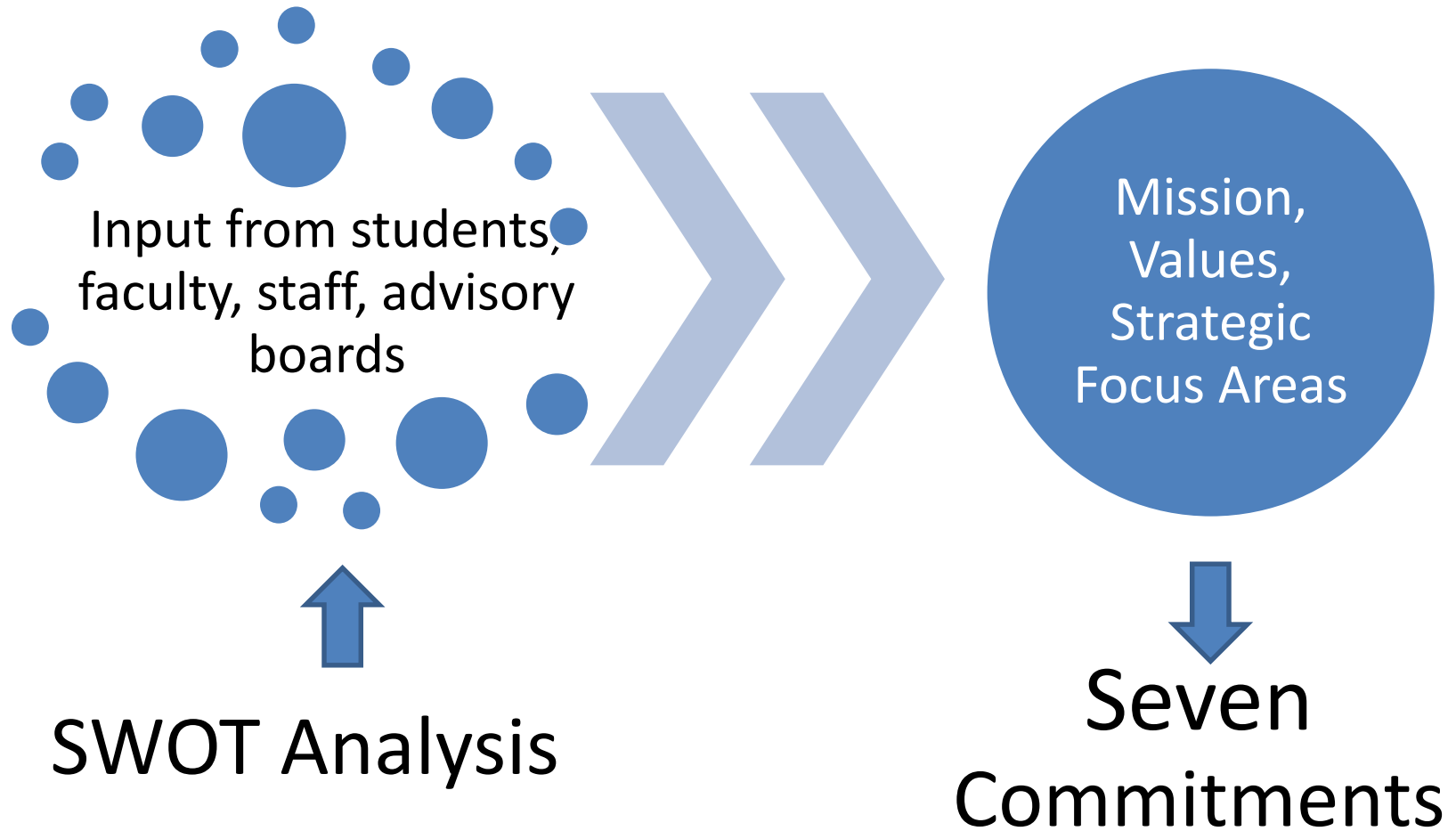
■ Total UG Enroll ■ Hispanic Enrollment



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2014-15 Strategic Planning Process



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ECST Mission

ECST's mission is to prepare the next generation of engineers, computer scientists, and technology professionals to lead, serve, and transform the greater Los Angeles area. We fulfill our mission by providing a rigorous, hands-on education for future leaders and problem solver.



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Motto

Commit to Excellence, Engage in Community



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STRATEGIC FOCUS AREAS

STUDENT SUCCESS

Our paramount commitment is to help our students discover their strengths, develop their aspirations, and reach their full potential every day through engaging and supportive learning environments.



FACULTY AND STAFF EXCELLENCE

A faculty and staff engaged in innovative research, equipped with modern facilities and labs, will result in research and project opportunities for our students, and professional growth and satisfaction.



COMMUNITY ENGAGEMENT

Establishing ties and partnerships with industry, community, alumni, and peer institutions benefits our College, our local economy, and helps us prepare our students for career success and lifelong learning.



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Our Commitments

Nurture a deeply engaged faculty and staff committed to enabling student success through quality curriculum, practical experience, responsive teaching, and active learning

Equip our classrooms, labs, and facilities with modern, state-of-the-art tools and technology

Encourage a vibrant research and innovation community that engages our students and addresses the needs of society and the world

Provide holistic student advising and mentoring for academic growth, career preparation, and development of leadership and community engagement skills

Cultivate an inclusive, open, and collaborative culture that instills a sense of community, connection, and engagement

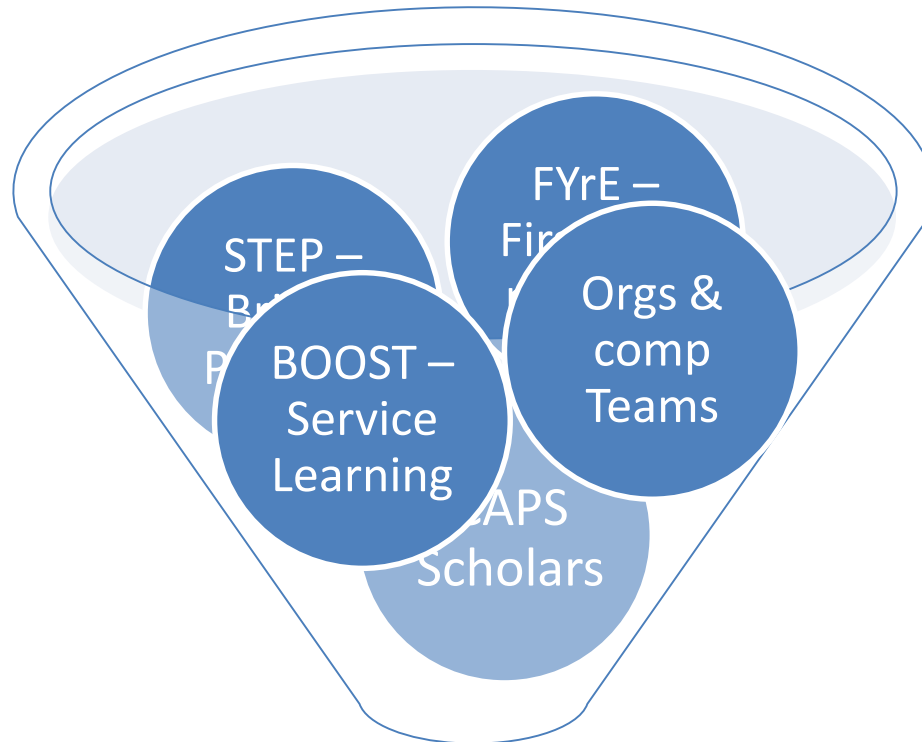
Foster strong industry, government, and community partnerships that provide rich opportunities for us to learn, to serve, and to advance knowledge

Build and grow a proud and engaged alumni network dedicated to supporting the College



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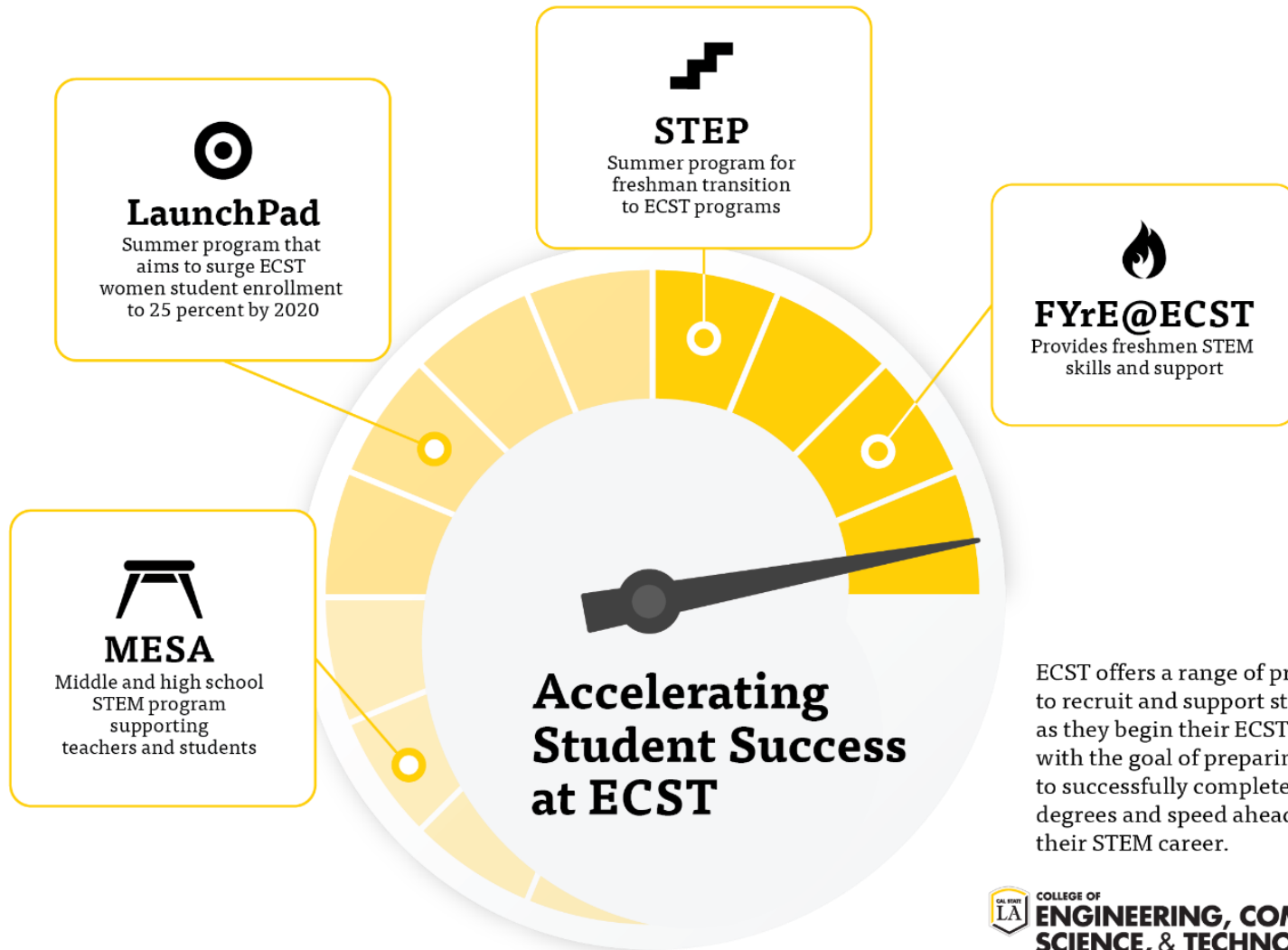
Capstone Senior Design Program



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Acceleration Initiatives



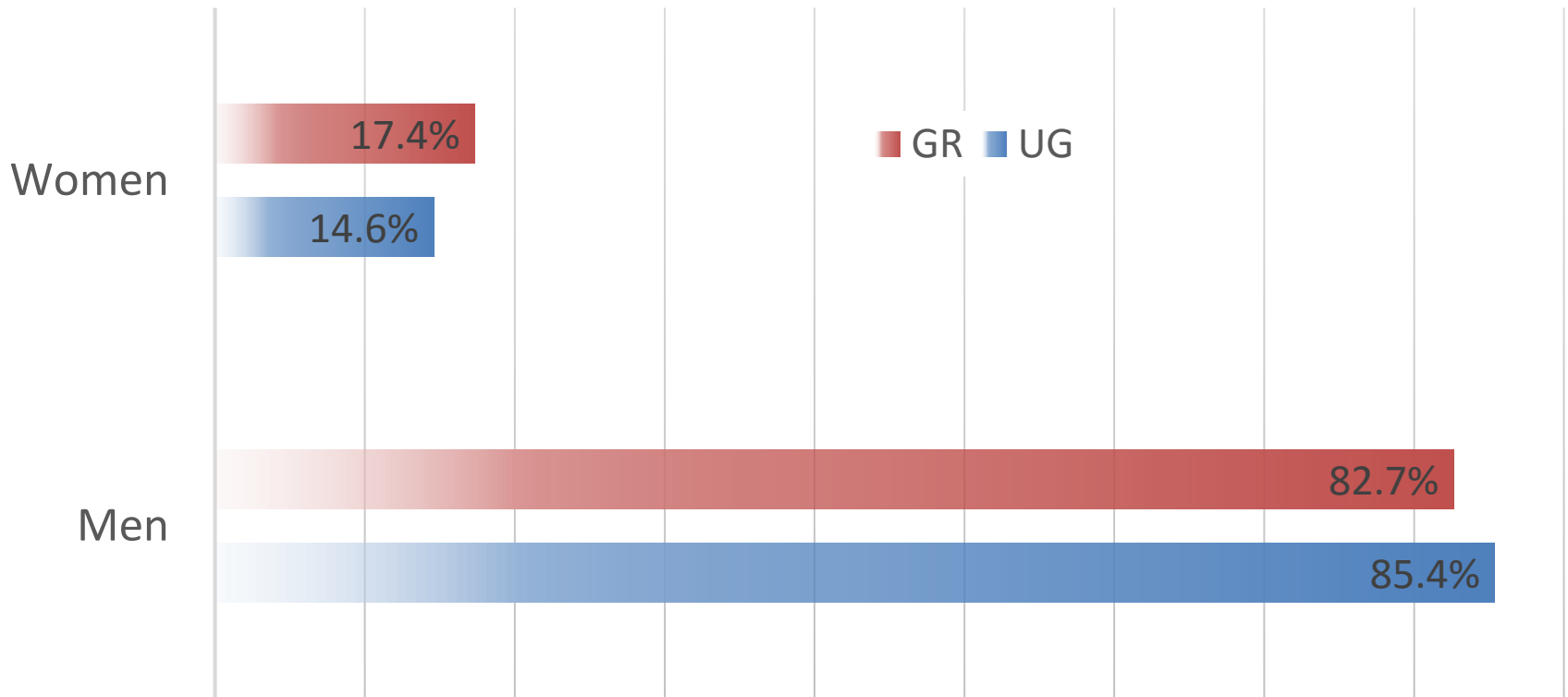
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Goal: 25% female enrollment in ECST in 2020



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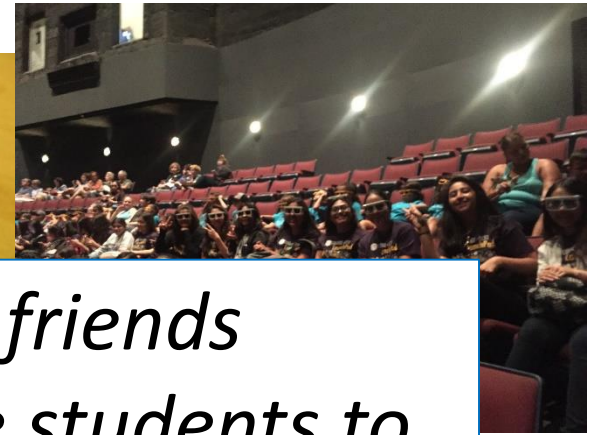
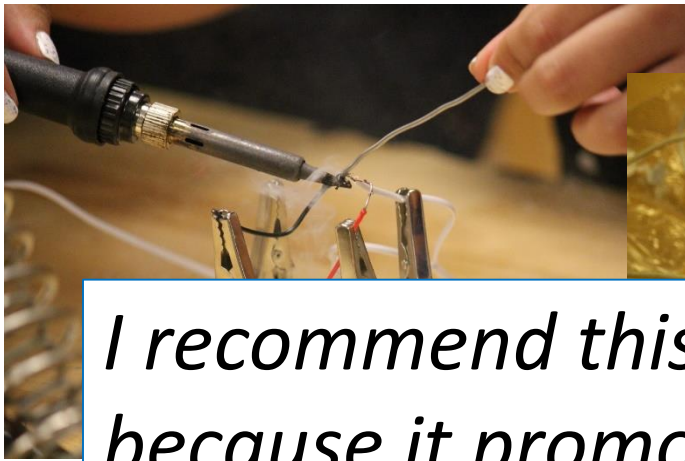
LAUNCHPAD Program

I recommend this program to my friends because it promotes more female students to pursue engineering and to want to make a difference in society. It encourages independence, self-confidence, and motivation to follow one's goals in life and to make an impact in society.



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Summer Transition to ECST Programs



STEP into Success

Meet Your Classmates Strengthen Your Skills Learn About ECST Organizations Participate in Workshops **REGISTER TODAY**

ENGINEERING AND TECHNOLOGY

Cal State LA

UNIVERSITY OF ENGINEERING, COMPUTER SCIENCE, & TECHNOLOGY

JUMP-START A SUCCESSFUL COLLEGE EXPERIENCE WITH STEP

Summer Transition to ECST Program (STEP), is required* for incoming freshmen in pre-engineering, pre-computer science, and technology majors to reinforce and develop math skills necessary to meet ECST major requirements. STEP will successfully prepare you for your freshman year and give you the opportunity to:

- Meet your ECST classmates
- Strengthen your math skills
- Start in Calculus 1 or higher in the Fall
- Learn about ECST student organizations
- Participate in personal development workshops
- Build relationships with ECST faculty, staff, and advisors

WHEN IS IT?

▲ The STEP orientation is Saturday, June 9, 2018, from 8 a.m. to 12 p.m. at Cal State LA.

▲ STEP begins Monday, June 18, 2018, and concludes Wednesday, August 8, 2018. The program runs from 9 a.m. to 3 p.m. Monday through Friday.

*STEP is required for all incoming freshmen in pre-engineering, pre-computer science, and technology majors. It is also required for all incoming freshmen in the College of ECST who have placed in Math Category 1-3. If you think you may be eligible for an exemption, visit www.calstatela.edu/ecst/success.



"STEP inspired and motivated me to do my best. I became a peer leader my sophomore year so I could give back to others."

Christopher Garcia, STEP participant

REGISTER TODAY!

Registering for STEP is easy! Once you've accepted your Cal State L.A. offer of admission (due by May 1), Complete the STEP application online here: <http://www.calstatela.edu/ecst/success/summer-transition-ecst-program-step>.

You must register by Friday, May 25, 2018.

For more information about STEP, please visit www.calstatela.edu/ecst/success, call (323) 343-4574 to speak with a staff member, or stop by E&T, A-Wing, Room A-125.



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FYrE @ ECST

First-Year Experience @ ECST

“I thought I would be on my own , but instead of being a solo player, I’m a team player. We help each other out. When I was in high school I thought I’d be on my own in college.” – FYRE18 student



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FYrE Commitments

- To ourselves: Grow, learn, and be better at what we do
- To our students: Create a program that is sustainable and offers them opportunities to achieve success; reach our GI2025 goals
- To our funders (NSF, Weingart Foundation): Scale the program up to all Calculus-ready freshmen by Fall 2020



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FYrE@ECST – Fall16 Cohort:

“A teacher told us you do better if you stay and study. Research shows this. I now stay on campus and do my homework here. It is much better because there is no temptation to do other things. Before I would go home after class.”



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Diverse Students, Diverse Projects

- 2018-2019 Portfolio

- 418 Students

- 79 Project teams
- 43 Industry sponsored
- 10 Community Service
- 3 Competition
- 23 Faculty Research

- Projects span **8** business sectors

- Automotive, Aerospace
- Power & Energy, Biomedical
- Robotics & Automation
- Marine & Environment
- Government & Management



TOYOTA



NORTHROP GRUMMAN

Raytheon



A Sempra Energy utility



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***You don't want to miss it!
2018-19 Capstone Project
EXPO!***

***Friday, May 3, 8-5 PM
Golden Eagle Ballrooms***



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Student Success

Semester Conversion

Major-Specific Admissions Criteria

“The “pre” before our engineering major signals you have to work hard to get rid of the “pre” and become a really serious student.” – FYrE17 student



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Faculty Excellence

- 25 new faculty since 2014
- Sikand Faculty Research Endowment for Urban Sustainability (\$1M)
- Sikand Center for Sustainable and InTelligent Infrastructure (SITI-Center, Mehran Mazari, Dir)
- Center for Energy and Sustainability (Pacheco-Vega, Dir)
- PREM (w/ NSS)
- DIRECT-STEM (w/NSS)
- Keck Award For Makerspace (\$325K, Chris Bachman, Dir)
- Teaching and Learning Academy (Jane Dong, Dir)
- Weingart Foundation - Acceleration Initiatives (\$525K)



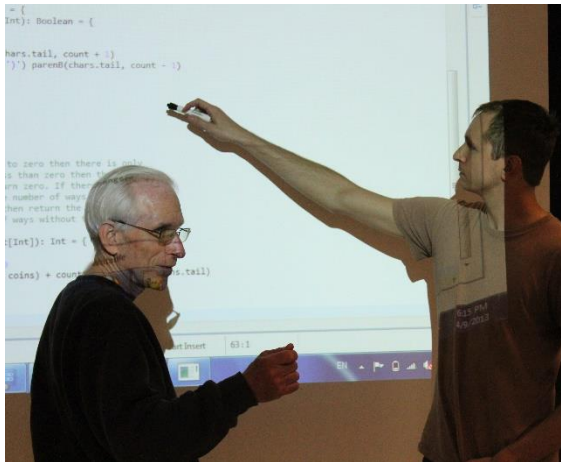
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Staff Excellence



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